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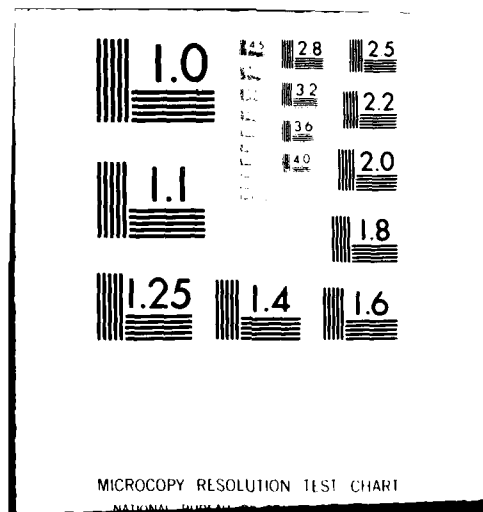
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DECENTRALIZED INPATIENT PHARMACY SERVICE STUDY.
PART C.

Job Satisfaction Between Pharmacists Performing Patient Care Activities
and Pharmacists Performing Dispensary or Supervisory Functions,

by

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CPT Terry Michael/Rauch/ MSC, USA
COL Brodes H. Hartley/ MSC, USA

Health Care Studies Division
Academy of Health Sciences
Fort Sam Houston, TX 78234

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Pharmacists (n = 145) assigned to 35 Army Medical Treatment Facilities in the United States were requested to complete survey questionnaires designed to assess satisfaction with pay, advancement, working conditions, professional challenge, staffing, and the pharmacy service in general. Pharmacists providing patient care scored significantly higher relative to pharmacists not providing patient care on satisfaction items constituting the factor "pharmacy services provided." On the other hand, no significant difference was found between groups for satisfaction with pay, working conditions, opportunity for		

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advancement, or effective communication among nurses, physicians and pharmacists. The findings are discussed relative to job satisfaction and enrichment.

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SUMMARY

Pharmacists utilized as clinical patient care providers constitute a rapidly developing profession. However, whether or not providing patient care is a form of job enrichment, and the effect of such job enrichment on job satisfaction, have not been investigated.

In June of 1979, pharmacists (n = 145) assigned to 35 Army Medical Treatment Facilities in the United States were requested to complete survey questionnaires designed to assess satisfaction with various facets of the pharmacy service.

The results of the present study show that:

(1) Pharmacists providing patient care are significantly more satisfied than their counterparts with the role provided by the pharmacy service toward patient care, the amount of drug information currently provided in response to physician and nurse needs, the availability to provide professional services to other members of the health care team, the staffing of the pharmacy, the education of patients and families in medication compliance, use of education effectively, and professional challenge.

(2) Items that best discriminate between pharmacy groups are the "Patient Care Pharmacists" greater satisfaction with the amount of drug information provided in response to physician and nurse needs and the use of education effectively.

(3) The relationship between satisfaction items on all pharmacists indicated that, as satisfaction increased for use of education effectively, there was: (a) a significant increase in satisfaction with professional challenge and (b) a significant increase in satisfaction with the availability to provide professional services to other members of the health care team.

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I. INTRODUCTION.

A. Purpose. The present study is the third part of Phase I: Decentralized Inpatient Pharmacy Service Study. The primary purpose of this part of the study was to investigate and compare job satisfaction of pharmacists practicing selected patient care activities and pharmacists performing primarily dispensary and supervisory roles.

B. Background - Literature Review. The concept of utilizing pharmacists as patient care providers is rapidly expanding in numerous health care delivery facilities. However, whether or not pharmacists providing patient care express greater job satisfaction than pharmacists limited to performing dispensary functions, has not been investigated.

A means of increasing both the satisfaction and productivity of employees is through job enrichment. Job enrichment consists of redesigning jobs so that employees experience a greater sense of accomplishment, responsibility, recognition and consequently, a greater motivation to work (Paul, Robertson and Herzberg, 1969). Previous authors (Hackman and Oldham, 1975; Herzberg, 1966) report that job enrichment increases both job satisfaction and commitment. These factors are thought to result from increased levels of certain job characteristics such as task identity and job significance.

Rauch and Hartley (1980) reported that pharmacists considered tasks which require providing therapeutic drug information to physicians and nurses as most important. The job tasks of pharmacists providing patient care generally include: (1) determining adverse reactions to drug therapy, (2) determining the efficacy of drug therapy, and (3) serving as a significant member of the therapeutic drug team. Applied to clinical pharmacy, the theory of job enrichment and satisfaction suggests that patient care pharmacists should express greater job satisfaction than pharmacists either performing dispensary or supervisory functions only. The greater satisfaction should result from pharmacists performing more diversified and significant tasks associated with patient care.

II. OBJECTIVES.

The specific study objectives addressed in this report were to determine whether or not pharmacists regard providing selected patient care activities as job enriching, and the effect of such job enrichment on job satisfaction.

III. METHOD.

A. Subjects. Survey respondents were Army and civilian pharmacists ($n = 145$) assigned to 35 Army Medical Treatment facilities in the United States.

B. Procedure. Information was obtained by means of a survey designed to measure satisfaction with pay, advancement, working conditions, professional challenge, staffing, and the pharmacy service in general. Responses were arranged in a 7-point Likert-type format ("extremely dissatisfied" to "extremely satisfied"). Demographic information was also requested. Each survey was addressed to the subject personally and mailed in June of 1979. After completion, respondents were instructed to return the surveys using a government franked return address sheet.

C. Group Design. Pharmacists were placed into one of two groups depending on whether or not they performed certain patient care activities. Providing patient care pharmacy included those activities in which the pharmacist applied knowledge of biological/pharmaceutical science and clinical experience to specific cases of drug therapy. The specific patient care tasks included: (1) conducting follow-up observation of patients to determine the efficacy of drug therapy, (2) conducting follow-up observation of patients to determine adverse reactions to drug therapy, and (3) serving as a member of the therapeutic drug team. Pharmacists performing all three patient care activities were assigned to the patient care group (PC). Pharmacists not performing all three patient care activities were assigned to the non-patient care group (NPC).

IV. RESULTS.

Of the pharmacists surveyed, 153 (96%) responded. Eight pharmacists were not included in the analysis because of missing data, resulting in a total of 145 usable respondents. Overall, 25 pharmacists were placed in the PC group and 44 assigned to the NPC group according to their current job activities. A comparison of PC and NPC pharmacists revealed no significant difference as a function of either age, time in military service, time practicing hospital pharmacy, facility size where pharmacist is assigned, sex, or employment (military versus civilian).

The results of a stepwise discriminant analysis for pharmacists and univariate F tests for each variable are summarized in Table I. A significant discriminant function was obtained, $\chi^2(4) = 18.74$, $p < .01$, accounting for 26% of the variance among four satisfaction items ($\eta^2 = .264$). The analysis of variance indicated that PC pharmacists were more satisfied than NPC pharmacists with professional challenge, $F(1,63) = 6.75$, $p < .05$, use of education effectively, $F(1,63) = 9.81$, $p < .01$, education of patient and families in medication compliance, $F(1,63) = 6.01$, $p < .05$, staffing of the pharmacy, $F(1,63) = 5.43$, $p < .05$, availability to provide professional services, $F(1,63) = 11.18$, $p < .01$, amount of drug information provided, $F(1,63) = 14.65$, $p < .01$, and the role provided by the pharmacy service toward patient care, $F(1,63) = 8.21$, $p < .01$.

No significant differences in satisfaction were found for PC and NPC pharmacists on pay, working conditions, opportunity for advancement, or effective communication among nurses, physicians and pharmacists.

Table II shows the intercorrelation for all satisfaction items. The strongest correlations were found for professional challenge and use of education effectively, $r = .72$, $p < .01$, and availability to provide professional services to members of the health care team and use of education effectively, $r = .61$, $p < .01$.

Standardized discriminant function coefficients are also reported in Table I. These weights represent the relative importance of each variable in the function and also indicate the degree of multicollinearity among the variables themselves. Taking these values into consideration, it can be seen that the majority of between-groups discrimination was explained by satisfaction with the amount of drug information provided in response to physician and nurse needs (discriminant weight of .61), use of education effectively (.50), and staffing of the pharmacy (.38).

Satisfaction items were factor analyzed. Item-factor loadings and Cronbach's alpha for each factor appear in Table III. The factor analysis yielded two factors having eigenvalues greater than 1.000 and accounting for a cumulative 56.8% of the total variance. The factors were subjected to a varimax rotation with Kaiser normalization to produce two factors identified as "pharmacy services provided" (factor I) and "organizational characteristics" (factor II). The two factors accounted for 82.7% and 17.3% of the variance respectively. Overall,

both factors show acceptable internal consistency, with "pharmacy services provided" showing the higher ($\alpha = .85$) and "organizational characteristics" the lower ($\alpha = .74$) reliability estimates.

V. DISCUSSION.

Individuals experience job satisfaction when they have achieved, or are achieving, relatively specific aspirations about the goals they expect to fulfill in their jobs. Dissatisfaction occurs when aspirations are unable to be achieved. Accordingly, PC pharmacists are more able to achieve the job aspirations which pharmacists perceive as being important. The similarity in the level of satisfaction between PC and NPC pharmacists on organizational characteristics such as pay, opportunity for advancement, and working conditions suggest these variables have little impact on satisfaction with pharmacy services. In this respect, satisfaction with the pharmacy services provided may be more a function of job enrichment. However, enrichment may depend upon how important PC pharmacists perceive the degree to which their patient care contact is valued by other health care providers. For example, PC pharmacists may define and react to certain health care tasks based on social cues received from physicians and nurses. Hence, health care professionals may regard job tasks which require clinical judgment in patient care to be more significant than drug dispensing which can easily be performed by a supervised pharmacy technician. Though activities involving clinical judgment may be perceived to be more important, acceptance of PC pharmacists by physicians and nurses is questionable, especially if there is a potential for role competition.

VI. CONCLUSIONS.

A. PC pharmacists are significantly more satisfied than NPC pharmacists with the role provided by the pharmacy service toward patient care, the amount of drug information currently provided in response to physician and nurse needs, the availability to provide professional services to other members of the health care team, the staffing of the pharmacy, the education of patients and families in medication compliance, use of education effectively, and professional challenge.

B. Items that best discriminate between the two groups are the PC pharmacists' greater satisfaction with: (1) the amount of drug information provided in response to physician and nurse needs and (2) the use of education effectively.

C. Intercorrelations for satisfaction items on all pharmacists indicated that, as satisfaction increased for use of education effectively, there was: (1) a significant increase in satisfaction with professional challenge, $r = .72$, and (2) a significant increase in satisfaction with the availability to provide professional services to members of the health care team, $r = .61$.

D. Organizational characteristics such as pay, working conditions, and opportunity for advancement are not as important as task characteristics (i.e., performing selected patient care activities) in determining differential job satisfaction between PC and NPC pharmacists.

VII. RECOMMENDATIONS.

A. Recommend that an abstract of this report be made available to all Army pharmacists.

B. A study be considered to determine the feasibility of establishing positions for clinical pharmacists at selected Army MTFs.

C. Recommend periodic surveys of Army pharmacists be conducted to determine current issues of concern.

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TABLES

Table I

Standardized Discriminant Function Coefficients and Analysis of Variance
for Satisfaction Items Between PC and NPC Pharmacists

Extremely Dissatisfied							Extremely Satisfied
Score =	1	2	3	4	5	6	7
Dependent Variable (satisfaction with...)	Patient Care Pharmacists		Non-Patient Care Pharmacists			F ^a	Standardized Discriminant Function Coefficients
	Mean	Standard Deviation	Mean	Standard Deviation			
The role provided by the pharmacy service in your MEDCEN/MEDDAC toward patient care	5.38	1.13	4.29	1.63	8.21**	.61	
The amount of drug information that you are currently providing in response to physician and nurse needs	5.92	1.01	4.54	1.58	14.65**		
Your availability to provide professional services to other members of the health care team	5.58	1.50	4.12	1.81	11.18**		
The staffing of the pharmacy department (i.e., the number of pharmacists and assistants)	3.79	1.86	2.71	1.78	5.43*	.38	
The education of patients and families in medication compliance	3.92	1.83	2.80	1.72	6.01*	.50	
Effective communication among nurses, pharmacists and physicians	4.96	1.71	4.12	1.85	3.28		
Opportunity for advancement	3.50	1.79	3.22	2.14	0.29		
Use of education effectively	5.13	1.51	3.63	2.02	9.81**		
Working conditions	4.71	1.55	4.59	1.90	0.20		
Professional challenge	5.33	1.49	4.00	2.24	6.75*		
Pay	3.79	1.74	3.85	2.03	0.01		

^adf = 1,63

*p < .05

**p < .01

Table II
Intercorrelations of Satisfaction Items

Satisfaction Item	1	2	3	4	5	6	7	8	9	10	11
(1) Role provided by pharmacy service toward patient care	1.00	.50	.47	.41	.44	.40	.32	.39	.45	.35	.49
(2) Amount of drug information provided to physicians and nurses		1.00	.56	.32	.46	.52	.20*	.27*	.52	.18*	.43
(3) Availability to provide professional services to health care team			1.00	.48	.47	.43	.21	.10*	.61	.26*	.40
(4) Staffing of the pharmacy				1.00	.46	.36	.32	.28*	.42	.23*	.23*
(5) Education of patients in medication compliance					1.00	.44	.22*	.21*	.49	.08*	.29
(6) Effective communication among nurses, physicians and pharmacists						1.00	.27*	.37	.47	.31	.37
(7) Pay							1.00	.51	.43	.40	.32
(8) Opportunity for advancement								1.00	.47	.38	.51
(9) Use of education effectively									1.00	.40	.72
(10) Working conditions										1.00	.50
(11) Professional challenge											1.00

df = 1,66

*p < .01 for all except these correlations.

Table III
Item-Factor Loadings for Satisfaction Measures and
Cronbach's Alpha for Factors

	FACTOR I (alpha = .85)	FACTOR II (alpha = .74)
Role provided by pharmacy service toward patient care	.55*	.40
Amount of drug information provided to physicians and nurses	.70*	.18
Availability to provide professional services to health care team	.76*	.11
Staffing of the pharmacy	.53*	.25
Education of patients in medication compliance	.65*	.13
Effective communication among nurses, physicians and pharmacists	.55*	.31
Pay	.17	.57**
Opportunity for advancement	.13	.73**
Use of education effectively	.61*	.54
Working conditions	.14	.57**
Professional challenge	.39	.62**

* indicates item belonging to FACTOR I

** indicates item belonging to FACTOR II

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